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1 [A student laboratory environment for real-time software systems development](#)

R. Stephen Dannelly, Carl W. Steidley

April 2001 Proceedings of the twelfth annual CCSC South Central conference on The journal of computing in small colleges

**Publisher:** Consortium for Computing Sciences in Colleges

Full text available: [pdf\(62.94 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 6, Downloads (12 Months): 42, Citation Count: 3

This paper describes a versatile and innovative active learning laboratory, called the Real-Time Lab, currently under development that will be used to teach a wide variety of computer science and mathematics subjects. The laboratory, equipped with a ...


## 2 Energy-efficient collision-free medium access control for wireless sensor networks



Venkatesh Rajendran, Katia Obraczka, J. J. Garcia-Luna-Aceves

November 2003 SenSys '03: Proceedings of the 1st international conference on Embedded networked sensor systems

**Publisher:** ACM

Full text available:  [pdf\(284.26 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 15, Downloads (12 Months): 183, Citation Count: 33

The traffic-adaptive medium access protocol (TRAMA) is introduced for energy-efficient collision-free channel access in wireless sensor networks. TRAMA reduces energy consumption by ensuring that unicast, multicast, and broadcast transmissions have no ...

**Keyw ords:** ad hoc networks, energy-efficient scheduling, sensor networks, traffic-adaptive medium access


## 3 A cache management object oriented simulation for mobile environments



Stylianos Drakatos, Christos Douligeris

October 2007 MSWiM '07: Proceedings of the 10th ACM Symposium on Modeling, analysis, and simulation of wireless and mobile systems

**Publisher:** ACM

Full text available:  [pdf\(711.26 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 9, Downloads (12 Months): 59, Citation Count: 0

Cache management in a real world mobile user system is too complex to allow for an analytical evaluation through a realistic mobility model. The recently proposed location-dependent applications request the design of simulation and the development of ...

**Keyw ords:** mobile computing, object oriented simulation model

## 4 Eye-tracking to model and adapt to user meta-cognition in intelligent learning environments



Christina Merten, Cristina Conati

January 2006 I UI '06: Proceedings of the 11th international conference on Intelligent user interfaces

**Publisher:** ACM

Full text available:  [pdf\(137.55 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 18, Downloads (12 Months): 124, Citation Count: 2

In this paper we describe research on using eye-tracking data for on-line assessment of user meta-cognitive behavior during the interaction with an intelligent learning environment. We describe the probabilistic user model that processes this information, ...

**Keyw ords:** adaptive interfaces, eye-tracking, intelligent assistance for complex tasks, intelligent learning environments, meta-cognitive skills, user modeling

## 5 [A peer-to-peer environment for monitoring multiple wireless sensor networks](#)



Athanasios Antoniou, Ioannis Chatzigiannakis, Athanasios Kinalis, Georgios Mylonas, Sotiris Nikolettseas, Apostolos Papageorgiou

October PM2HW2N '07: Proceedings of the 2nd ACM workshop on Performance monitoring 2007 and measurement of heterogeneous wireless and wired networks

**Publisher:** ACM

Full text available: [pdf\(312.55 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 27, Downloads (12 Months): 123, Citation Count: 0

In this work we present the basic concepts in the architecture of a peer-to-peer environment for monitoring multiple wireless sensor networks, called ShareSense. ShareSense, which is currently under development, uses JXTA as a peer-to-peer substrate. ...

Keyw ords: JXTA, application development, wireless sensor networks

## 6 [Managing large scale virtual environments using portals](#)



Luciene Cristina Rinaldi Rodrigues, José Remo Ferreira Brega, Antonio Carlos Sementille, Ildeberto A. Rodello

June VRCAI '04: Proceedings of the 2004 ACM SIGGRAPH international conference on 2004 Virtual Reality continuum and its applications in industry

**Publisher:** ACM

Full text available: [pdf\(380.64 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 4, Downloads (12 Months): 22, Citation Count: 0

This Article describes a technique for Large Scale Virtual Environments (LSVEs) partitioning in hexagon cells and using portal in the cell interfaces to reduce the number of message on the network and the complexity of the virtual world. These environments ...

Keyw ords: area of interest manager, cell interface, distributed virtual environments, large scale virtual environments, networked virtual environment

## 7 [Towards mobility as a network control primitive](#)



David Kiyoshi Goldenberg, Jie Lin, A. Stephen Morse, Brad E. Rosen, Y. Richard Yang

May MobiHoc '04: Proceedings of the 5th ACM international symposium on Mobile ad hoc 2004 networking and computing

**Publisher:** ACM

Full text available: [pdf\(487.68 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 8, Downloads (12 Months): 92, Citation Count: 8

In the near future, the advent of large-scale networks of mobile agents autonomously performing long-term sensing and communication tasks will be upon us. However, using controlled node mobility to improve communication performance is a capability that ...


Keyw ords: mobility control, routing, self-configuration in ad hoc networks

**8** A stackelberg game for power control and channel allocation in cognitive radio networks

Michael Bloem, Tansu Alpcan, Tamer Başar

October 2007 ValueTools '07: Proceedings of the 2nd international conference on Performance evaluation methodologies and tools

**Publisher:** ICST (Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering)


Full text available:  pdf(220.26 KB)

Additional Information: [full citation](#), [abstract](#), [references](#)

**Bibliometrics:** Downloads (6 Weeks): 24, Downloads (12 Months): 32, Citation Count: 0


The ongoing growth in wireless communication continues to increase demand on the frequency spectrum. The current rigid frequency band allocation policy leads to a significant under-utilization of this scarce resource. However, recent policy changes by ...

**9** Achieving effective floor control with a low-bandwidth gesture-sensitive videoconferencing system

 Milton Chen

December 2002 MULTIMEDIA '02: Proceedings of the tenth ACM international conference on Multimedia

**Publisher:** ACM

Full text available:  pdf(340.30 KB)


Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#)

**Bibliometrics:** Downloads (6 Weeks): 1, Downloads (12 Months): 29, Citation Count: 5

Multiparty videoconferencing with even a small number of people is often infeasible due to the high network bandwidth required. Bandwidth can be significantly reduced if most of the advantages of using full-motion video can be achieved with low-frame-rate ...


Keywords: floor control, frame rate, multiparty videoconferencing

**10** Selective perception policies for guiding sensing and computation in multimodal systems: a comparative analysis

 Nuria Oliver, Eric Horvitz

November 2003 I CMI '03: Proceedings of the 5th international conference on Multimodal interfaces

**Publisher:** ACM

Full text available:  pdf(489.96 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 7, Downloads (12 Months): 37, Citation Count: 1

Intensive computations required for sensing and processing perceptual information can impose significant burdens on personal computer systems. We explore several policies for selective perception in SEER, a multimodal system for recognizing office activity ...

**Keyw ords:** Hidden Markov models, automatic feature selection, expected value of information, human behavior recognition, multi-modal interaction, office awareness, selective perception


**11** [The "control of fear": an interactive art experiencing and presenting system with multimodal sensors and media](#)



Chin Chih Yang, Lipin Liu, Jacy Chen

November 2005      MULTIMEDIA '05: Proceedings of the 13th annual ACM international conference on Multimedia

**Publisher:** ACM

Full text available:  [pdf\(500.76 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 9, Downloads (12 Months): 46, Citation Count: 0

The "Control of Fear" project is an interactive art exhibition project to provide the general public an opportunity to experience what it might be occurred to them if their lives were suddenly altered by an unforeseen and unpredictable catastrophic event.The ...


**Keyw ords:** 3D holographic, intelligent interaction, interactive art, multimodal sensor, panoramic video, speech recognition

**12** [Channel access algorithms with active link protection for wireless communication networks with power control](#)

Nicholas Bambos, Shou C. Chen, Gregory J. Pottie

October 2000      IEEE/ ACM Transactions on Networking (TON), Volume 8 Issue 5

**Publisher:** IEEE Press

Full text available:  [pdf\(339.62 KB\)](#)

Additional Information: [full citation](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 6, Downloads (12 Months): 75, Citation Count: 13

**Keyw ords:** admission control, multiple access, power control, radio channel access, wireless networks


### 13 Believable environments: generating interactive storytelling in vast location-based



#### pervasive games

Anton Gustafsson, John Bichard, Liselott Brunnberg, Oskar Juhlin, Marco Combetto  
June ACE '06: Proceedings of the 2006 ACM SIGCHI international conference on Advances  
2006 in computer entertainment technology

**Publisher:** ACM

Full text available:  [pdf\(239.21 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 5, Downloads (12 Months): 179, Citation Count: 1

Generating content into vast areas is a relevant challenge in the field of location-based pervasive games. In this paper, we present a game prototype that enables children travelling in the back seat of a car to enjoy a narrated experience where gameplay ...

**Keyw ords:** audio centric, backseat playground, believable environment, interactive storytelling, location based, pervasive game, prototype performance test


### 14 Crew roles and operational protocols for rotary-wing micro-uavs in close urban



#### environments

Robin R. Murphy, Kevin S. Pratt, Jennifer L. Burke  
March HRI '08: Proceedings of the 3rd ACM/IEEE international conference on Human robot  
2008 interaction

**Publisher:** ACM

Full text available:  [pdf\(374.21 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 30, Downloads (12 Months): 30, Citation Count: 0

A crew organization and four-step operational protocol is recommended based on a cumulative descriptive field study of teleoperated rotary-wing micro air vehicles (MAV) used for structural inspection during the response and recovery phases of Hurricanes ...

**Keyw ords:** human-robot interaction, robot, unmanned aerial vehicle


### 15 Audio-visual multi-person tracking and identification for smart environments



Keni Bernardin, Rainer Stiefelhagen

September MULTIMEDIA '07: Proceedings of the 15th international conference on  
2007 Multimedia

**Publisher:** ACM

Full text available:  [pdf\(638.17 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 23, Downloads (12 Months): 173, Citation Count: 0

This paper presents a novel system for the automatic and unobtrusive tracking and identification of multiple persons in an indoor environment. Information from several fixed cameras is fused in a particle filter framework to simultaneously track multiple ...


**16** User requirements for intelligent home environments: a scenario-driven approach and empirical cross-cultural study



Carsten Röcker, Maddy D. Janse, Nathalie Portolan, Norbert Streitz

October 2005 sOc-EUSAI '05: Proceedings of the 2005 joint conference on Smart objects and ambient intelligence: innovative context-aware services: usages and technologies

**Publisher:** ACM

Full text available:  [pdf\(121.64 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#)

**Bibliometrics:** Downloads (6 Weeks): 17, Downloads (12 Months): 124, Citation Count: 1

This paper presents the results of an empirical cross-cultural study conducted at six different sites in five European countries in the context of the EU IST-IP project AMIGO, Ambient Intelligence for the Networked Home Environment [1]. The study employed ...


**17** Low-cost multi-touch sensing through frustrated total internal reflection



Jefferson Y. Han

October 2005 UI ST '05: Proceedings of the 18th annual ACM symposium on User interface software and technology

**Publisher:** ACM

Full text available:  [pdf\(1.08 MB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 231, Downloads (12 Months): 2610, Citation Count: 14

This paper describes a simple, inexpensive, and scalable technique for enabling high-resolution multi-touch sensing on rear-projected interactive surfaces based on *frustrated total internal reflection*. We review previous applications of this phenomenon ...

Keyw ords: frustrated total internal reflection, multi-touch, tactile, touch


**18** Continual planning and acting in dynamic multiagent environments



Michael Brenner, Bernhard Nebel

November 2006 PCAR '06: Proceedings of the 2006 international symposium on Practical cognitive agents and robots

**Publisher:** ACM

Full text available:  [pdf\(672.09 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 8, Downloads (12 Months): 77, Citation Count: 0


In highly dynamic environments, e.g. multiagent systems, finding optimal action plans is practically impossible since individual agents lack important knowledge at planning time or this knowledge has become obsolete when a plan is executed. It is often ...

## 19 [Multi Level Control of Cognitive Characters in Virtual Environments](#)

Peter Dannenmann, Henning Barthel, Hans Hagen

October 2003 VIS '03: Proceedings of the 14th IEEE Visualization 2003 (VIS'03)


**Publisher:** IEEE Computer Society

Full text available:  [pdf\(106.03 KB\)](#)

Additional Information: [full citation](#), [references](#)


**Bibliometrics:** Downloads (6 Weeks): 4, Downloads (12 Months): 17, Citation Count: 0

## 20 [A hybrid mobile robot architecture with integrated planning and control](#)

 Kian Hsiang Low, Wee Kheng Leow, Marcelo H. Ang, Jr.

July 2002 AAMAS '02: Proceedings of the first international joint conference on Autonomous agents and multiagent systems: part 1

**Publisher:** ACM

Full text available:  [pdf\(221.97 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 7, Downloads (12 Months): 115, Citation Count: 2

Research in the planning and control of mobile robots has received much attention in the past two decades. Two basic approaches have emerged from these research efforts: deliberative vs.\ reactive. These two approaches can be distinguished by their different ...

Keyw ords: hybrid agent architectures, learning, mobile agents, perception and action in agents, performance, self-organizing systems

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Results 1 - 20 of 3,140 Result page: 1 [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

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